STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION





PATRICIA W. AHO COMMISSIONER

Stratton Lumber, Inc. Franklin County Stratton, Maine A-9-71-O-R (SM)

Departmental
Findings of Fact and Order
Air Emission License
Renewal

FINDINGS OF FACT

After review of the air emissions license renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

Stratton Lumber, Inc. (Stratton) has applied to renew their Air Emission License permitting the operation of emission sources associated with their lumber mill.

The equipment addressed in this license is located at their facility in Stratton, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

	Maximum	Maximum				
	Capacity	Firing Rate	Fuel	Control	Install.	
Equipment	(MMBtu/hr)	(tons/hr)	Type	<u>Device</u>	<u>Date</u>	Stack #
Boiler #1	22.5	*2.5	Wood	Multi-cyclones	1990	1

^{*} The maximum firing rate was based on a heat content 4,500 BTU per pound of wood at 50% moisture.

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Process Equipment

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		Pollution Control	
<u>Equipment</u>	Unit Capacity	<u>Equipment</u>	Stack #
Kiln #1	240,000 Board Feet (BF)	None	N/A
Kiln #2	180,000 Board Feet (BF)	None	N/A
Kiln #3	180,000 Board Feet (BF)	None	N/A
Planer Shavings Cyclone	Varies	Cyclone	2
Sawmill Sawdust Cyclone	Varies	Cyclone	3
Edgings Chipper Cyclone	Varies	Cyclone	4
Fuel Silo Cyclone	Varies	Cyclone	5

C. Application Classification

The application for Stratton does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of currently licensed emission units only and has been processed as such through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (CMR) 115 (as amended). With the board feet throughput limit on Kilns #1, #2 and #3 the facility is licensed below the major source thresholds for criteria pollutants and is considered a synthetic minor, as well as, the facility is licensed below the major source thresholds for hazardous air pollutants (HAP) and is considered an area source of HAP.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

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B. Boiler #1

Stratton operates Boiler #1 for facility heat, hot water and drying kiln steam. Boiler #1 was installed in 1990 and has a design heat input capacity of 22.5 MMBtu/hour firing wood. Particulate matter (PM) emissions from the boiler are controlled by two, in series, multiple centrifugal separators ("multiclones"). The multiclones have been modified to incorporate a fly ash reinjection system. Emissions, after passing through the multiclones, exhausts to Stack #1 with an above ground height of 60 feet and an inside diameter of 24 inches.

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In 2005, Stratton retrofited the boiler with an over-fire combustion air system (secondary air) that supplies combustion air into multiple locations along the length of the furnace combustion chamber above the fuel chutes. The improvements did not affect the currently licensed design heat input capacity of 22.5 MMBtu/hr. Stratton proposed that the upgrades of Boiler #1 resulted in higher combustion efficiencies, therefore improving overall boiler emissions.

Due to the size and year of installation, the boiler is subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, for units greater than 10 MMBtu/hr manufactured after June 9, 1989. Due to Boiler #1 being less than 30 MMBtu/hr, there are no applicable emission standards or monitoring and testing requirements; however, Stratton shall record and maintain records of the amount of each fuel combusted during each month in the boiler. [40 CFR Part 60, §60.48c(g)(2)]

1. BPT Findings

The BPT emission limits for the boiler are based on the following:

Wood

PM/PM ₁₀ SO ₂	 0.30 lb/MMBtu based on 06-096 CMR 103 0.02 lb/MMBtu based on previous license and 06-096
502	CMR 115, BPT
NO_x	 0.22 lb/MMBtu based on AP-42, Table 1.6-2, dated 9/03
CO	- 1.00 lb/MMBtu based on previous license and 06-096
	CMR 115, BPT
VOC	- 0.10 lb/MMBtu based on previous license and 06-096
	CMR 115, BPT
Opacity	 Previous 06-096 CMR 115, BPT

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The BPT emission limits for the boiler are the following:

	PM	PM ₁₀	SO_2	NO_x	CO	VOC
<u>Unit</u>	(lb/hr)	<u>(lb/hr)</u>	<u>(lb/hr)</u>	<u>(lb/hr)</u>	<u>(lb/hr)</u>	<u>(lb/hr)</u>
Boiler #1	6.8	6.8	0.5	5.0	22.5	2.3

Visible emissions from Stack #1 (serving Boiler 1) shall not exceed 20% opacity on a 6-minute block average, except for no more than two (2) six (6) minute block averages in a 3-hour period. [License A-9-71-M-R/A dated March 27, 2008]

Stratton is licensed to operate at maximum capacity (8,760 hours/year), which equates to 197,100 MMBtu/year of wood (equivalent to 21,900 tons/year at 50% moisture) based on a 12-month rolling total.

2. Periodic Monitoring

Periodic monitoring for the boiler shall include recordkeeping to document fuel use on a monthly basis. Documentation shall include the quantity of fuel (wood) used.

3. 40 CFR Part 63 Subpart JJJJJJ

Boiler #1 is subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJJ). The unit is considered an existing biomassfired boiler.

A summary of the currently applicable federal 40 CFR Part 63 Subpart JJJJJJ requirements are listed below. At this time, the Department has not taken delegation of this area source MACT (Maximum Achievable Control Technology) rule promulgated by EPA, however Stratton is still subject to the requirements. Notification forms and additional rule information can be found on the following website:

http://www.epa.gov/ttn/atw/boiler/boilerpg.html.

a. Compliance Dates, Notifications, and Work Practice Requirements

i. Initial Notification of Compliance

An Initial Notification submittal to EPA was due January 20, 2014. [40 CFR Part 63.11225(a)(2)]

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ii. Boiler Tune-Up Program

- (a) A boiler tune-up program shall be implemented to include the initial tune-up of the applicable boiler no later than March 21, 2014. [40 CFR Part 63.11196(a)(1)]
- (b) The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
 - 1. As applicable to a biomass-fired boiler, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim system, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(1)]
 - 2. Inspect the flame pattern, <u>as applicable to a biomass-fired boiler</u>, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]
 - 3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim system, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(3)]
 - 4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
 - 5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]
 - 6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]
- (c) After conducting the initial boiler tune-up, a Notification of Compliance Status shall be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]

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- (d) The facility shall implement a boiler tune-up program after the initial tune-up and initial compliance report (called a Notification of Compliance Status) has been submitted.
 - 1. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

Boiler Category	Tune-Up Frequency
New or Existing Oil, Biomass and Coal fired	
boilers that are not designated as "Boilers with	
less frequent tune up requirements" listed below	Every 2 years
New and Existing Oil, Biomass, and Coal fired	
Boilers with less frequent tune up requirements	
Seasonal (see definition §63.11237)	Every 5 years
Limited use (see definition §63.11237)	Every 5 years
With a heat input capacity of <5MMBtu/hr	Every 5 years
Boiler with oxygen trim system which maintains	
an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune up	Every 5 years

[40 CFR Part 63.11223(a) and Table 2]

2. The tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured at high fire or typical operating load, before and after the boiler tune-up, a description of any corrective actions taken as part of the tune-up of the boiler, and the types and amounts of fuels used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)] The compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions. [40 CFR Part 63.11225(b)]

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iii. Energy Assessment

Boiler #1 is subject to the energy assessment requirement as follows:

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- (a) A one-time energy assessment shall be performed by a qualified energy assessor on the applicable boiler no later than March 21, 2014. [40 CFR Part 63.11196(a)(3)]
- (b) The energy assessment shall include a visual inspection of the boiler system; an evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

 [40 CFR Part 63, Table 2(4)]
- (c) A Notification of Compliance Status shall be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(c)]

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJJ including the following [40 CFR Part 63.11225(c)]: copies of notifications and reports with supporting compliance documentation; identification of the boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned; documentation of fuel type used monthly by the boiler; the occurrence and duration of each malfunction of the boiler; and actions taken during periods of malfunction to minimize emissions and actions taken to restore the malfunctioning boiler to its usual manner of operation. Records shall be in a form suitable and readily available for expeditious review.

Note: EPA will require submission of Notification of Compliance Status reports for tune-ups and energy assessments through their electronic reporting system. [63.1125(a)(4)(vi)]

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C. Drying Kilns

Stratton is currently licensed to operate three kilns for green lumber drying, designated Kilns #1, #2 and #3. Kiln #1 has an approximate capacity of 240,000 board feet (BF) per charge and Kilns #2 and #3 have approximated capacities of 180,000 BF per charge each.

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The facility's current air emission license restricts throughput through the drying kilns to 90 million board feet per year (MMBF/year) of a combination of spruce and fir based on a twelve-month rolling total, not to exceed drying a total of 25 MMBF/year of fir per year based on a twelve-month rolling total. Approximately 70% to 80% of the wood dried is spruce and the vast majority of the spruce is red spruce. The remaining balance of the wood being dried is balsam fir.

Using a VOC emission factor for fir of 1.14 pounds per thousand board feet (lb/MBF) and a VOC emission factor for spruce of 0.77 lb/MBF, Stratton has a current licensed potential to emit 39.3 tons of VOC per year from kiln operations based on a twelve-month rolling total. Emission factors were obtained from two University of Maine studies published in June 1997 and April 2000, respectively.

Stratton modernized their mill in 2009 which included improvements in the log handling and log feed-in systems, allowing for an increase in the kilns' lumber drying capacity. However, Stratton has asked to keep the licensed limit of 90 MMBF/year since they do not anticipate production to exceed this limit in the foreseeable future, as well as, they would like to keep the total facility wide annual VOC limit below 50 tons per year to avoid being classified as a major source and subject to Title V licensing.

In 2007, Stratton and the consultant, MacMillan & Donnelly, Inc. (M&D), submitted a BACT analysis for the wood drying kilns to the Department comparing the BACT requirements of other similar facilities as documented in the US EPA BACT/RACT/LAER clearing house. The analysis documented that BACT for the control of VOC emissions from wood drying kiln operations does not require any add-on control equipment. BACT consists of good kiln operation and maintenance practices.

D. Cyclones

There are several areas of the mill where wood dust is potentially generated and the dust-laden air is captured and blown to a cyclone to separate the wood particles from the air. The mill's four active cyclones are in the following locations: The Edgings Chipper Cyclone is located on the sawmill roof, the Fuel Silo Cyclone is located on top of the fuel storage silo and the Planer Shavings Cyclone and the Sawmill Sawdust Cyclone are located on the roof of the planer mill and sawmill sawdust storage bin.

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Stratton shall maintain a log of the conditions of the cyclones and dust conveying equipment. Stratton shall inspect operations of the cyclones and the dust conveying equipment once per month, and record the findings and any repairs conducted on the units.

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Visible emissions from each cyclone shall not exceed an opacity of 10% on a 6-minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period.

E. Fugitive Emissions

Potential sources of fugitive PM emissions (including stockpiles and unpaved roadways) shall be controlled by wetting with water, with calcium chloride, or other methods as approved by the Department to prevent visible emissions in excess of 10% opacity on a three (3) minute block average basis. [06-096 CMR 115, BPT]

F. General Process Emissions

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period.

G. Annual Emissions

1. Total Annual Emissions

Stratton shall be restricted to the following annual emissions, based on a 12-month rolling total. The tons per year limits were calculated based on a maximum operation of 8,760 hours/year (equivalent to 197,100 MMBtu/year) for Boiler #1 and a maximum licensed throughput of 90 MMBF/year for the Drying Kilns (with 25 MMBF/year of the total 90 MMBF/year throughput being designated for fir species):

Total Licensed Annual Emissions for the Facility Tons/year

(used to calculate the annual license fee)

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Boiler #1	29.6	29.6	2.0	21.7	98.6	9.9
Drying Kilns	-	-	-	-	-	39.3
Total TPY	29.6	29.6	2.0	21.7	98.6	49.2

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2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans*, 40 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO₂e).

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Based on the facility's fuel use limit(s), the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, Stratton is below the major source threshold of 100,000 tons of CO₂e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

H. VOC RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds, 06-096 CMR 134 (as amended), is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons per year. Stratton has total annual VOC emissions of 49.2 tons per year; however, VOC emissions from the incomplete combustion of any material except where material is heated, burned, combusted or otherwise chemically changed under oxygen-deficient conditions by design (i.e. Boiler #1), are exempt in determining a facility's total VOC emissions. [06-096 CMR 134(1)(C)(4)] Therefore, the facility's total annual VOC emissions come only from the Drying Kilns and equate to 39.3 tons per year. Stratton is therefore below the 40 tons per year threshold and not subject to 06-096 CMR 134.

III. AMBIENT AIR QUALITY ANALYSIS

Stratton previously submitted an ambient air quality impact analysis for air emission license A-009-71-G-A/R (dated September 8, 1997) demonstrating that emissions from the facility, in conjunction with all other sources, do not violate Ambient Air Quality Standards (AAQS). An additional air quality impact analysis is not required for this renewal.

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Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment.
- will not violate applicable emission standards, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-9-71-O-R subject to the following conditions.

<u>Severability</u>. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S.A. §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]

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- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353-A. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - 2. pursuant to any other requirement of this license to perform stack testing.
 - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 115]

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- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
 - A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 CMR 115]

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

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SPECIFIC CONDITIONS

(16) **Boiler #1**

A. Fuel

1. Boiler #1 is licensed to fire wood and shall be operated so as not to exceed an operating capacity of 22.5 MMBtu/hour. [06-096 CMR 115, BPT]

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- 2. Compliance shall be demonstrated by fuel records showing the quantity of fuel (wood) used. Records of annual fuel use shall be kept on a monthly basis. [06-096 CMR 115, BPT and 40 CFR Part 60, Subpart Dc (§60.48c(g)(2))]
- B. Stratton shall continue to operate and maintain two multiple centrifugal separators (multiclones), in series, for particulate matter control while operating Boiler #1. [06-096 CMR 115, BPT]
- C. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	PM	0.3	06-096 CMR 103(2)(B)(4)(a)

D. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission	PM	PM ₁₀	SO ₂	NO _x (lb/hr)	CO	VOC
Unit	(lb/hr)	(lb/hr)	(lb/hr)		(lb/hr)	(lb/hr)
Boiler #1	6.8	6.8	0.5	5.0	22.5	2.3

- E. Visible emissions from Boiler #1 shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a 3-hour period. [06-096 CMR 115, BPT]
- F. 40 CFR Part 63, Subpart JJJJJJ [incorporated under 06-096 CMR 115, BPT]
 - 1. An Initial Notification submittal to EPA was due January 20, 2014. [40 CFR Part 63.11225(a)(2)]
 - 2. A boiler tune-up program shall be implemented to include the initial tune-up of the applicable boiler no later than March 21, 2014. [40 CFR Part 63.11196(a)(1)]

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- 3. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
 - (a) As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim system, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(1)]
 - (b) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]
 - (c) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim system, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(3)]
 - (d) Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
 - (e) Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]
 - (f) If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]
- 4. After conducting the initial boiler tune-up, a Notification of Compliance Status shall be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]
- 5. The facility shall implement a boiler tune-up program after the initial tuneup and initial compliance report (called a Notification of Compliance Status) has been submitted.
 - (a) Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

Boiler Category	Tune-Up Frequency
New or Existing Oil, Biomass and Coal fired	
boilers that are not designated as "Boilers with	
less frequent tune up requirements" listed below	Every 2 years
New and Existing Oil, Biomass, and Coal fired	
Boilers with less frequent tune up requirements	
Seasonal (see definition §63.11237)	Every 5 years
Limited use (see definition §63.11237)	Every 5 years
With a heat input capacity of <5MMBtu/hr	Every 5 years
Boiler with oxygen trim system which maintains	
an optimum air-to-fuel ratio that would	
otherwise be subject to a biennial tune up	Every 5 years

[40 CFR Part 63.11223(a) and Table 2]

- (b) The tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured at high fire or typical operating load, before and after the boiler tune-up, a description of any corrective actions taken as part of the tune-up of the boiler, and the types and amounts of fuels used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)] The compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions. [40 CFR Part 63.11225(b)]
- 6. A one-time energy assessment shall be performed by a qualified energy assessor on Boiler #1 no later than March 21, 2014. [40 CFR Part 63.11196(a)(3)]
 - (a) The energy assessment shall include a visual inspection of the boiler system; an evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel

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usage; a list of major energy conservation measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. [40 CFR Part 63, Table 2(4)]

- (b) A Notification of Compliance Status shall be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(c)]
- 7. Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJJ including the following [40 CFR Part 63.11225(c)]: copies of notifications and reports with supporting compliance documentation; identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned; documentation of fuel type(s) used monthly by each boiler; the occurrence and duration of each malfunction of the boiler; and actions taken during periods of malfunction to minimize emissions and actions taken to restore the malfunctioning boiler to its usual manner of operation. Records shall be in a form suitable and readily available for expeditious review.

(17) Drying Kilns

- A. Stratton shall be limited to drying a combined 90.0 MMBF/yr of spruce and fir at their Stratton, Maine facility based on a 12-month rolling total. [06-096 CMR 115, BPT]
- B. Stratton shall be limited to drying no more than 25.0 MMBF/yr of fir at their Stratton, Maine facility based on a 12-month rolling total. [06-096 CMR 115, BPT]
- C. Stratton shall maintain a record of wood drying. The record shall include the quantity of wood dried and indicating the species of wood dried. The record shall be maintained on a monthly and 12-month rolling total. [06-096 CMR 115, BPT]
- D. Prior to drying any other species of wood in the kilns, Stratton shall contact the Department to assess whether any modifications need to be made to this air emission license. [06-096 CMR 115, BPT]

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(18) Cyclones

A. Stratton shall operate and maintain the cyclones in a manner that minimizes emissions from the cyclones. [06-096 CMR 115, BPT]

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- B. Visible emissions from each cyclone shall not exceed 10% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]
- C. Stratton shall maintain a log of the conditions of the cyclones and dust conveying equipment. [06-096 CMR 115, BPT]
- D. Stratton shall inspect operations of the cyclones and the dust conveying equipment once per month and record the findings and any repairs in the cyclone log. [06-096 CMR 115, BPT]

(19) Fugitive Emissions

Potential sources of fugitive PM emissions (including stockpiles and unpaved roadways) shall be controlled by wetting with water, with calcium chloride, or other methods as approved by the Department to prevent visible emissions in excess of 10% opacity on a three (3) minute block average basis. [06-096 CMR 115, BPT]

(20) General Process Sources

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]

(21) Annual Emission Statement

In accordance with *Emission Statements*, 06-096 CMR 137 (as amended), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of either:

- 1) A computer program and accompanying instructions supplied by the Department; or
- 2) A written emission statement containing the information required in 06-096 CMR 137.

The emission statement must be submitted as specified by the date in 06-096 CMR 137.

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(22) Stratton shall notify the Department within 48 hours and submit a report to the Department on a <u>quarterly basis</u> if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605).

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DONE AND DATED IN AUGUSTA, MAINE THIS 24 DAY OF March , 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Ulu Kolut Corre for PATRICIA W. AHO, COMMISSIONER

The term of this license shall be ten (10) years from the signature date above.

[Note: If a complete renewal application, as determined by the Department, is submitted prior to expiration of this license, then pursuant to Title 5 MRSA §10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the renewal of the license.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 12/17/2012

Date of application acceptance: 01/04/2013

Date filed with the Board of Environmental Protection:

This Order prepared by Allison M. Hazard, Bureau of Air Quality.

